

ABSTRACT

The present invention is a multi-phase method, circuit and system for programming non-volatile memory ("NVM") cells in an NVM array. The present invention may include a controller to determine when, during a first programming phase, one or more NVM cells of a first set of cells reaches or exceeds a first intermediate voltage, and to cause a charge pump circuit to apply to a terminal of the one or more cells in the first set second phase programming pulses to induce relatively greater threshold voltage changes in cells having less stored charge than in cells having relatively more stored charge.